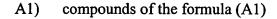
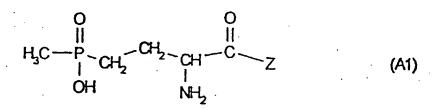
- 21. A method for controlling harmful plants in sugar beet crops which comprises applying to the crops, seeds, plants, plant organs or area under cultivation a synergistically
 - A) one or more broad-spectrum herbicide selected from the group consisting of



effective amount of a combination of



in which Z is a radical of the formula –OH or a peptide residue of the formula –NHCH(CH₃)CONHCH(CH₃)COOH or –NHCH(CH₃)CONHCH[CH₂CH(CH₃)₂]COOH, or its esters or salts, or other phosphinothricin derivatives,

A2) compounds of the formula (A2) or their esters or salts,

$$HO \xrightarrow{P} CH_{2} \xrightarrow{C} OH$$
(A2)

A3) imidazolinones or their salts

and

B) one or more herbicidal compounds selected from the group consisting of

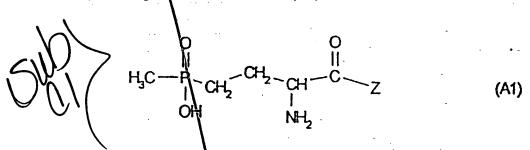
- ethofumesate, chloridazon, triflusulfuron or its esters, or B1) metamitron,
- B2) desmedipham, phenmedipham, quinmerac, clopyralid or salts of these compounds,
- hilari fox. C
- B3) quizalofop-P, quizalofop, fenoxaprop-P, fenoxaprop, fluazifop-P, fluazifop, haloxyfop, haloxy-P, cyhalofop, the salts or esters of the last-mentioned nine compounds, clodinafop or its esters, or propaguizafop, and
- B4) sethoxydim, cycloxydim or clethodim

and, optionally, a safener

whereby, the sugar beet crops tolerate the broad spectrum herbicides (A) and the herbicidal compounds (B) with the exception of combinations wherein

- a) compound (A1) is in combination with the compound propaguizafop,
- b) compound (A2) is in combination with the compound propaguizafop, clodinafop or its esters, triflusulfuron or its esters, metamitron, chloridazon or clopyralid or its salts.
- 22. The method as claimed in claim 21, wherein the broad spectrum herbicide is glufosinate-ammonium.
- 23. The method as claimed in claim 21, wherein the broad spectrum herbicide is glyphosate-isopropyl ammonium.
- 24. The method as claimed in claim 21, wherein herbicidal compounds (B) are selected from the group consisting of
 - B1) ethofumesate,

- B2) desmedipham, phenmedipham, quinmerac or their salts,
- B3) fenoxaprop-P, fenoxaprop, fluazifop-P, fluazifop, haloxyfop, haloxyfop-P, cyhalofop, or the salts or esters of the last-mentioned seven compounds, and
- B4) sethoxydim, cycloxydim or clethodim.
- 25. The method as claimed in claim 21, wherein the combination further comprises active ingredients used in crop protection.
- 26. The method as claimed in claim 21, wherein the combinations are applied jointly with auxiliaries conventionally used in crop protection and/or formulation auxiliaries.
- 27. The method according to claim 21, wherein the combination is applied preemergently and the compounds comprising the combination are applied jointly or separately.
- 28. The method according to claim 21, wherein the combination is applied postemergently. The compounds comprising the combination are applied jointly or separately.
- 29. The method according to claim 21, wherein the combination is applied both pre-emergently and post-emergently.
 - A herbicidal composition which comprises a combination comprising
 one or more groad-spectrum herbicide selected from the group consisting of
 - A1) compounds of the formula (A1)



in which Z is a radical of the formula –OH or a peptide residue of the formula –NHCH(CH₃)CONHCH(CH₃)COOH or

B

-NHCH(CH₃)CONHCH[CH₂CH(CH₃)₂]COOH, or its esters or salts, or other phosphinothricin derivatives,

A2) compounds of the formula (A2) or their esters and salts,



HO-P-CH₂ CH₂ OH

(A2)

(V) AB)

imidazolinones or their salts;

and

- B) one or more herbicidal compounds selected from the group consisting of
 - B1') ethofumesate, chloridazon, triflusulfuron or metamitron,
 - B2') desmedipham, phenmedipham, quinmerac, or clopralid,
 - B3') quizalofop-P, fenoxaprop-P, fluazifop-P, haloxyfop, haloxyfop-P, and cyhalofop, or the salts or esters of these compounds and
 - B4') sethoxydim, cycloxydim or clethodim

and, optionally, additives and/or formulation aids conventionally used in crop protection with the exception of herbicidal compositions wherein

compound (A2) in combination with the compound triflusulfuron or its esters, metamitron, chloridazon or chlopyralid or its salts.

- 31. A herbicidal composition according to claim 30, wherein the herbicidal compound (B) is selected from the group consisting of
 - B1') ethofumesate,
 - B2') desmedipham, phenmedipham, or quinmerac,

8

- B3') fenoxaprop-P, fluazifop-P, haloxyfop, haloxyfop-P, cyhalofop, or the salts or esters of these compounds, and
- B4') sethoxydim, cycloxydim or clethodim.
- 32. A herbicidal composition which comprises a combination comprising
- A) glufosinate-ammonium

and

- B) at least one herbicidal compound (B) which is selected from the group consisting of
- B1') ethofumesate, chloridazon, triflusulfuron or its esters, or metamitron,
- B2') desmedipham, phenmedipham, quinmerac, clopyralid or the salts of these compounds,
- B3') fenoxaprop-P, fluazifop-P, haloxyfop, haloxyfop-P, cyhalofop, or the esters or salts of these compounds
- B4') sethoxydim, cycloxydim or clethodim and, optionally, additives and/or formulation aids conventionally used in crop protection.
- 33. A herbicidal composition which comprises a composition comprising a combination comprising
 - A) at least one broad-spectrum herbicide compound selected from the group consisting of
 - A2) compounds of the formula A2) or their esters or salts,

$$\begin{array}{c|cccc}
O & H & O \\
II & H & II \\
OH & CH_2 & OH
\end{array}$$
(A2)

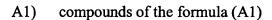


and

- B) at least one herbicidal compound selected from the group consisting of
 - B1') ethofumesate or chloridazon, and
 - B2') desmedipham, phenmedipham, quinmerac, or the salts of these compounds

and, optionally, additives and/or formulation aids conventionally used in crop protection.

- 34. A herbicidal composition which comprises a composition comprising a combination comprising
 - A) at least one broad spectrum herbicide compound selected from the group consisting of



in which Z is a radical of the formula –OH or a peptide residue of the formula –NHCH(CH₃)CONHCH(CH₃)COOH or –NHCH(CH₃)CONHCH[CH₂CH(CH₃)₂]COOH, or its esters or salts, or other phosphinothricin derivatives,

- A3) imidazolinones or their salts; and
- B) at least one herbicidal compound selected from the group consisting of



- B1) ethofumesate, chloridazon, triflusulfuron or its esters, or metamitron, or
- B2) desmedipham, phenmedipham, quinmerac, clopyralid or salts of these compounds,
- B3) quizalofop-P, quizalofop, fenoxaprop-P, fenoxaprop, fluazifop-P, fluazifop, haloxyfop, haloxyfop-P, cyhalofop, the salts or esters of the last-mentioned nine compounds, clodinafop or its esters, propaquizafop, and
- and, optionally, additives and/or formulation aids conventionally used in crop protection,
 with the exception of compound (A1) in combination with propaguizafop or clodinafop

sethoxydim, cycloxydim or clethodim

B4)

or its esters.

A)

35. A herbicidal composition which comprises a composition which comprises a combination comprising

at least one broad spectrum herbicide compound selected from the group consisting of

A2) compounds of the formula (A2) and their esters and salts,

$$HO \longrightarrow P \longrightarrow CH_2 \longrightarrow CH_2 \longrightarrow OH$$

$$OH$$

$$OH$$

$$CH_2 \longrightarrow OH$$

$$OH$$

$$OH$$

$$OH$$

B) at least one herbicidal compound selected from the group consisting of quizlofop-P, quizalofop, fenoxaprop-P, fenoxaprop, fluaziofop-P, fluzifop, sexoydim and clethodim

and, optionally additives and/or formulation aids conventionally used in crop

protection.

- 36. A method for controlling harmful plants in sugar beet crops which comprises applying to the crops, seeds, plants, plant organs or area under cultivation asynergistically effective amount of a combination comprising
 - A) at least one broad spectrum herbicide compound selected from the group consisting of
 - A1) compounds of the formula (A1)

in which Z is a radical of the formula –OH or a peptide residue of the formula –NHCH(CH₃)CONHCH(CH₃)COOH or –NHCH(CH₃)CONHCH[CH₂CH(CH₃)₂]COOH, or its esters or salts, or other phosphinothricin derivatives,

A3) imidazolinones or their salts;

and

- B) at least one herbicidal compound selected from the group consisting of
 - B1) ethofumesate, chloridazon, triflusulfuron or its esters, or metamitron, or
 - B2) desmedipham, phenmedipham, quinmerac, clopyralid or the salts of these compounds,

- B3) quizalofop-P, quizalofop, fenoxaprop-P, fenoxaprop, fluazifop-P, fluazifop, haloxyfop, haloxyfop-P, cyhalofop, the salts or esters of the last-mentioned nine compounds, clodinafop or its esters, propaquizafop, and
- B4) sethoxydim, cycloxydim or clethodim and, optionally, a safener, whereby the sugar beet crops tolerate the broad-spectrum herbicide (A) and the herbicidal compounds (B), with the exception of

compound (A1) in combination with propaguizafop or clodinafop or its esters.

- 37. The method as claimed in claim 36 wherein the broad-spectrum herbicide is glufosinate-ammonium.
- 38. The method as claimed in claim 36 wherein the herbicidal compounds (B) are selected from the group consisting of
 - B1) ethofumesate,
 - B2) desmedipham, phenmedipham, quinmerac, or their salts,
 - B3) fenoxaprop-P, fenoxaprop, fluazifop-P, fluazifop, haloxyfop-P, cyhalofop, or the salts or esters of these last-mentioned seven compounds, and
 - B4) sethoxydim, cycloxydim or clethodim.
- 39. The method as claimed in claim 36 wherein the combination further comprises active ingredients used in crop protection.
- 40. The method as claimed in claim 36 wherein the combination is applied jointly with auxiliaries conventionally used in crop protection and/or formulation auxiliaries.
 - 41. The method according to claim 36, wherein the combination is applied pre-



00058109

emergently and the compounds comprising the combination are applied jointly or separately.

- 42. The method according to claim 36, wherein the combination is applied postemergently and the compounds comprising the combination are applied jointly or separately.
- 43. The method according to claim 36 wherein the combination is applied both pre-emergently and post-emergently.
- 44. A method for controlling harmful plants in sugar beet crops which comprises applying to the crops, seeds, plants, plant organs or area under cultivation a herbicidal composition according to claim 32, whereby the sugar beet crops tolerate the broad-spectrum herbicide (A) and the herbicidal compounds (B).
- 45. A method for controlling harmful plants in sugar beet crops which comprise applying to the crops, seeds, plants, plant organs, or area under cultivation a herbicidal composition according to claim 33, whereby the sugar beet crops tolerate the broad-spectrum herbicide (A) and the herbicidal compounds (B).
- 46. A method for controlling harmful plants in sugar beet crops which comprises applying to the crops, seeds, plants, plant organs or area under cultivation a herbicidal composition according to claim 34, whereby the sugar beet crops tolerate the broad-spectrum herbicide (A) and the herbicidal compounds (B).
- 47. A method for controlling harmful plants in sugar beet crops, which comprises applying to the crops, seeds, plant organs or area under cultivation a herbicidal composition according to claim 35, whereby the sugar beet crops tolerate the broad-spectrum herbicide (A) and the herbicidal compounds (B).

